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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,405

04/24/2007

Tadahisa Tanaka

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WENDEROTH, LIND & PONACK, L.L.P.

1030 15th Street, N.W.,

Suite 400 East

Washington, DC 20005-1503

EXAMINER

LIU, HENRY Y

ART UNIT

PAPER NUMBER

3657

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,405	<b>Applicant(s)</b> TANAKA, TADAHISA	
	<b>Examiner</b> HENRY LIU	<b>Art Unit</b> 3657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/27/2008, 6/09/2006</u> .                                    | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This is the first action on the merits for application 10/582405. **Claims 1 and 2** are pending, of which **Claims 1 and 2** are in independent form.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the engine pulley" in line 8. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

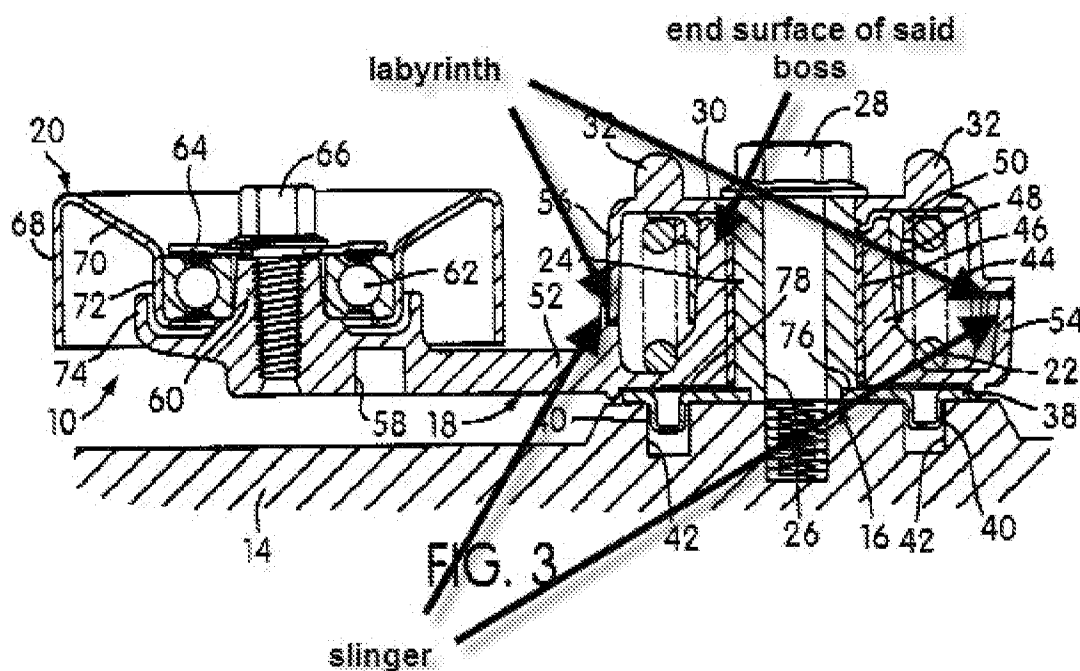
Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over KATOGLI (6,036,612) in view of BELLAMY (6,458,055).

Regarding Claim 1, KATOGLI teaches “A tension adjusting device (Fig. 1) for an engine accessory driving belt (7) comprising a tension pulley (5) configured to be brought into contact with the engine accessory driving belt (7), a pivotable pulley arm (1) supporting said tension pulley (5) and having a boss (2) at one end thereof.” KATOGLI teaches a pivotally supported pulley arm (1) and hydraulic auto-tensioner (6) for applying a regulating force to said pulley arm (1), thereby pressing said tension pulley against the belt (7) (Col. 2 lines 15-60).”

KATOGLI does not teach “said boss being formed with a shaft inserting hole, a tubular fulcrum shaft mounted in said shaft inserting hole, a bolt axially extending through said fulcrum shaft and configured to be brought into threaded engagement with an engine block and tightened to fix said fulcrum shaft to the engine pulley” and “a washer is disposed between a head of said bolt and an end surface of said boss, said washer having a cylindrical portion covering an end portion of said boss including said end surface, and that a slinger is mounted on said end portion of said boss, said cylindrical portion of said washer and said slinger defining a labyrinth therebetween.”

BELLAMY teaches a boss (44) being formed with a shaft inserting hole, a tubular fulcrum shaft (24) mounted in said shaft inserting hole, a bolt (28) axially extending through said fulcrum shaft (24) and configured to be brought into threaded engagement with an engine block (Col. 2 lines 40-55) and tightened to fix said fulcrum shaft (24) to the engine pulley (20), thereby pivotally supporting said pulley arm (18) (Fig. 3).

BELLAMY teaches a washer (30) (Fig. 3) disposed between a head of said bolt (28) and an end surface of said boss (44), said washer having a cylindrical portion (56) (Fig. 3) covering an end portion of said boss (44) including said end surface, and that a slinger is mounted on said end portion of said boss (44), said cylindrical portion (56) of said washer (30) and said slinger defining a labyrinth therebetween." See figure below.



It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tension adjusting device in KATOGLI with the pivot mounting structure and labyrinth for preventing entry of contaminants in BELLAMY. The combination results in a cost effective pivot mount which provides protection from contaminants.

Regarding Claim 2, KATOGLI teaches “A tension adjusting device (Fig. 1) for an engine accessory driving belt (7) comprising a tension pulley (5) configured to be brought into contact with the engine accessory driving belt (7), a pivotable pulley arm (1) supporting said tension pulley (5), a hydraulic auto-tensioner (6) for applying a regulating force to said pulley arm (1), thereby pressing said tension pulley (5) against the belt (7), said auto-tensioner (6) having at one end thereof a coupling piece (28) formed with a bush inserting through hole (29) extending between two sides thereof (Fig. 2) a tubular bush (30) inserted in said bush inserting through hole (29) and a bolt (31) inserted through said bush (30).” KATOGLI teaches a bolt (31) in threaded engagement with an engine block (3).

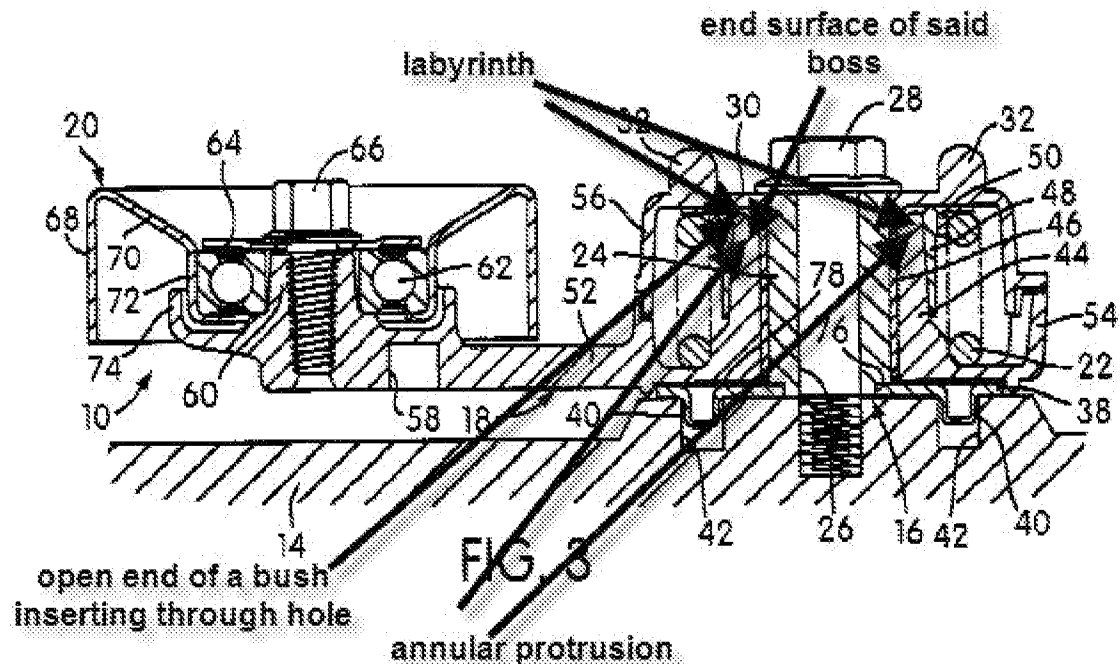
KATOGLI does not teach “brought into threaded engagement with said pulley arm and tightened to fix said bush to said pulley arm, thereby pivotally coupling said one end of said hydraulic auto-tensioner to said pulley arm.”

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tensioning device in KATOGLI such that the same hydraulic tensioner to engine block mounting structure is used to mount the hydraulic tensioner to the pivot arm (1), since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70. The modification allows the hydraulic tensioner to be more easily removed from the pivot arm.

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KATOGLI does not teach "characterized in that two washers are disposed between opposed surfaces of said bush and said pulley arm and between opposed surfaces of said bush and a head of said bolt, respectively, each of said washers having an outer cylindrical portion extending toward said coupling piece, and that said coupling piece has two annular protrusions each formed at one of two open ends of said bush inserting through hole, said cylindrical portion of each of said washers and the corresponding one of said annular protrusions defining a labyrinth therebetween."

BELLAMY teaches a washer (30) disposed between opposed surfaces of said bush (24) and a mounting surface (12) (Fig. 1) and between opposed surfaces of said bush (24) and a head of said bolt (28) (Fig. 3). The washer has a cylindrical portion (56) extending toward a coupling piece (18), which has an annular protrusion at an open end of a bush inserting through hole, said cylindrical portion (56) of the washer and annular protrusions defining a labyrinth therebetween." See figure below.



It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tension adjusting device in KATOGLI as modified with the mounting structure and labyrinth for preventing entry of contaminants in BELLAMY. The combination results in a cost effective hydraulic tensioner mount which provides protection from contaminants.

BELLAMY does not teach the use of two washers and two annular protrusions.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tensioning device in KATOGLI as modified to utilize two of the labyrinth structures in BELLAMY arranged with one on each side of the coupling piece, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*,



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193 USPQ 8. Here, adding a duplicate labyrinth structure simply provides protection from contaminants to both sides of the bushing.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENRY LIU whose telephone number is (571) 270-7018. The examiner can normally be reached on Mon-Thurs 7:30am - 5:00pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT SICONOLFI can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HENRY LIU/

/Robert A. Siconolfi/

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Examiner, Art Unit 3657

Supervisory Patent Examiner, Art  
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